



US Army Corps
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San Francisco District

Regulatory Division
1455 Market Street, 16th Floor
San Francisco, CA 94103-1398

SAN FRANCISCO DISTRICT

PUBLIC NOTICE

PROJECT: San Lorenzo River Lagoon Interim Management Program

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1. **INTRODUCTION:** The City of Santa Cruz (City), through its agent, Conservation Collaborative (POC: Donna Meyers, 831-535-3979), 204 Laguna Street, Santa Cruz, California 95060, has applied to the U.S. Army Corps of Engineers (USACE), San Francisco District, for a Department of the Army permit to implement lagoon management activities at the mouth of the San Lorenzo River, in the City of Santa Cruz, Santa Cruz County, California. This Department of the Army permit application is being processed pursuant to the provisions of Section 404 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1344 *et seq.*) and Section 10 of the Rivers and Harbors Act of 1899, as amended (33 U.S.C. § 403 *et seq.*).

2. PROPOSED PROJECT:

Project Site Location: The project is located at the mouth of the San Lorenzo River adjacent to the Santa Cruz Beach and Boardwalk (Figure 1) (36.96364°N, -122.01249°W). The nearest cross streets are Beach and Third Streets.

Project Site Description: The mouth of the San Lorenzo River is characterized by both natural and built features, including bluffs formed by San Lorenzo Point along the eastern shore, Santa Cruz Beach and Boardwalk to the south and west, and USACE Flood Control levees to the north. The levees were built in 1957 and have channelized the area just upstream of the river mouth, disconnecting the lower river from its historic floodplain. The formation of a sandbar across the mouth of the San Lorenzo River often forms a closed lagoon during the

summer and fall. Due to the constricted nature of the lower river, under closed conditions any inflow into the lagoon from river flows or wave overwash typically results in rising lagoon levels. When the lagoon surface elevation exceeds 5.0 feet as measured on the railroad trestle staff gage, subsurface seepage typically starts to flood the Boardwalk's basements and other surrounding low lying infrastructure including streets, yards, and buried utilities

Project Description: The City proposes to implement an Interim Management Program (IMP) to manage lagoon levels during closed conditions between May 1 and November 15 over a 3 year period starting in 2015. The IMP will include the following two management activities:

1. Temporary Outlet Channel (Figure 2)

When the lagoon level exceeds 5.0 feet a temporary channel will be excavated through the sandbar to slowly lower the water level. A shallow part of the lagoon will be used as a sill to reduce the likelihood of headcutting and scour and prevent complete draining of the lagoon. A sand track "peninsula" will be graded in the lagoon near the outlet opening on the beach side. This peninsula will act to control the direction of flow and headcutting. Once established, a blade will be used to cut a shallow opening to begin flow from the lagoon to the ocean. As headcutting occurs, documented by periodic walking depth measurements, sand will be pushed into the channel to reduce further scour and headcutting. Walking surveys will be performed every 30 minutes. Sand piles will be

maintained adjacent to the inlet to provide immediate ability to control headcutting. Typical channel dimensions will be 35-50 feet in width and 75 feet in length, with approximately 1,000 cubic yards of beach sand being excavated and sidecast. Once the desired lagoon level of 3-4 feet is reached, the outlet channel will be closed by refilling with the stockpiled sand. The choice of final stage of the lagoon will be evaluated based on habitat constraints and the likelihood for future outlet channel actions. A temporary outlet channel may be established up to six times per season. To minimize potential impacts the following measures will be implemented:

- Establish nets for intercepting any fish that may be carried towards channel opening;
- Survey location of the lagoon thalweg and beach profile before breach;
- Side cast material on the ocean side of the channel;
- Open the outlet channel on an incoming tide;
- Draw water down into the outlet channel over a wide shallow area; and
- Stockpile sand peninsula and monitor frequently for headcutting.

2. Head Driven Culvert (Figures 3-5)

Beginning in 2016 a head-driven culvert will be installed at the beginning of the season to allow the lagoon to rise to 5.0 feet under normal mouth closure conditions and then maintain that elevation through passive drainage. The culvert relies on passive removal of water from the lagoon via overflow of surface waters through a small weir and infiltration through the barrier sandbar as an additional contribution. A series of three 4' diameter standpipes (risers) would be partially buried in the lagoon adjacent to San Lorenzo Point, and would be connected to horizontal culvert approximately 450 feet long buried in the beach connecting the lagoon to the ocean. The horizontal culvert would be constructed from 100-foot pipe sections, which would be connected with flanges. At the connection points, the culvert would be anchored with concrete weights to prevent it from being washed out during flood events. For each section added, a new 100' trench will be excavated, and the prior trench will be backfilled. This procedure of excavating and filling trenches sequentially as sections are bolted together is intended to prevent a single trench from spanning the entire width of the beach. A duckbill outlet will serve for discharging flows from the culvert at the ocean. The duckbill outlet will be painted tan to match the beach color. The overall excavation will be approximately 500

feet long by 3 feet deep, with an estimated 500 cubic yards of beach sand to be excavated and backfilled to bury the pipe. The culvert and intake structures would be installed in the spring season after flood flows have subsided, but could be deferred until later as long as other flood management actions (e.g. the outlet channel) are taken. Installation would occur preferably during open mouth conditions, before flows on the San Lorenzo River at the USGS Santa Cruz gage drop below 20 cfs. However, installation could occur when the mouth is closed as long as equipment can access the work area safely.

Basic Project Purpose: The basic project purpose comprises the fundamental, essential, or irreducible purpose of the project, and is used by USACE to determine whether the project is water dependent. The basic project purpose is to reduce flooding associated with water levels above 5 feet within the San Lorenzo Lagoon.

Overall Project Purpose: The overall project purpose serves as the basis for the Section 404(b)(1) alternatives analysis, and is determined by further defining the basic project purpose in a manner that more specifically describes the applicant's goals for the project, while allowing a reasonable range of alternatives to be analyzed. The overall project purpose is to reduce flooding of public and private infrastructure surrounding the San Lorenzo River lagoon while protecting water quality and sensitive biological resources.

Project Impacts: The proposed IMP actions would result in temporary excavation and discharge of beach sand within jurisdictional waters of the U.S., over the course of three seasons with multiple episodes each season. Up to 1,000 cubic yards would be excavated and backfilled up to six times per season for the temporary outlet channel. Approximately 500 cubic yards would be excavated and backfilled at the beginning and end of each season for culvert installation and removal.

Proposed Mitigation: The applicant has not proposed any mitigation for the proposed project.

Project Alternatives: The applicant has explored numerous alternatives to the proposed management actions. Most of the alternatives have been focused either on different methods of controlling the lagoon levels, or on appropriate maximum and minimum water levels. Other alternatives, including floodproofing vulnerable infrastructure, are being pursued separately from the proposed IMP. USACE will prepare its own 404(b)(1)

alternatives analysis prior to reaching a final permit decision.

3. STATE AND LOCAL APPROVALS:

Water Quality Certification: State water quality certification or a waiver is a prerequisite for the issuance of a Department of the Army Permit to conduct any activity which may result in a fill or pollutant discharge into waters of the United States, pursuant to Section 401 of the Clean Water Act of 1972, as amended (33 U.S.C. § 1341 *et seq.*). The applicant has recently submitted an application to the California Regional Water Quality Control Board (RWQCB) to obtain water quality certification for the project. No Department of the Army Permit will be issued until the applicant obtains the required certification or a waiver of certification. A waiver can be explicit, or it may be presumed, if the RWQCB fails or refuses to act on a complete application for water quality certification within 60 days of receipt, unless the District Engineer determines a shorter or longer period is a reasonable time for the RWQCB to act.

Water quality issues should be directed to the Executive Officer, California Regional Water Quality Control Board, Central Coast Region, 895 Aerovista Place, Suite 101, San Luis Obispo, California 93401, by the close of the comment period.

Coastal Zone Management: Section 307(c) of the Coastal Zone Management Act of 1972, as amended (16 U.S.C. § 1456(c) *et seq.*), requires a non-Federal applicant seeking a federal license or permit to conduct any activity occurring in or affecting the coastal zone to obtain a Consistency Certification that indicates the activity conforms with the State's coastal zone management program. Generally, no federal license or permit will be granted until the appropriate State agency has issued a Consistency Certification or has waived its right to do so. Since the project occurs in the coastal zone or may affect coastal zone resources, the applicant has applied for a Consistency Determination from the California Coastal Commission to comply with this requirement.

Coastal zone management issues should be directed to the District Manager, California Coastal Commission, Central Coast District Office, 725 Front Street, Suite 300, Santa Cruz, California 95060-4508, by the close of the comment period.

Other Local Approvals: The applicant has applied for a Streambed Alteration Agreement from the California Department of Fish and Wildlife.

4. COMPLIANCE WITH VARIOUS FEDERAL LAWS:

National Environmental Policy Act (NEPA): Upon review of the Department of the Army permit application and other supporting documentation, USACE has made a *preliminary* determination that the project neither qualifies for a Categorical Exclusion nor requires the preparation of an Environmental Impact Statement for the purposes of NEPA. At the conclusion of the public comment period, USACE will assess the environmental impacts of the project in accordance with the requirements of the National Environmental Policy Act of 1969 (42 U.S.C. §§ 4321-4347), the Council on Environmental Quality's Regulations at 40 C.F.R. Parts 1500-1508, and USACE Regulations at 33 C.F.R. Part 325. The final NEPA analysis will normally address the direct, indirect, and cumulative impacts that result from regulated activities within the jurisdiction of USACE and other non-regulated activities USACE determines to be within its purview of Federal control and responsibility to justify an expanded scope of analysis for NEPA purposes. The final NEPA analysis will be incorporated in the decision documentation that provides the rationale for issuing or denying a Department of the Army Permit for the project. The final NEPA analysis and supporting documentation will be on file with the San Francisco District, Regulatory Division.

Endangered Species Act (ESA): Section 7(a)(2) of the ESA of 1973, as amended (16 U.S.C. § 1531 *et seq.*), requires Federal agencies to consult with either the U.S. Fish and Wildlife Service (USFWS) or the National Marine Fisheries Service (NMFS) to ensure actions authorized, funded, or undertaken by the agency are not likely to jeopardize the continued existence of any Federally-listed species or result in the adverse modification of designated critical habitat. As the Federal lead agency for this project, USACE has conducted a review of the California Natural Diversity Data Base, digital maps prepared by USFWS and NMFS depicting critical habitat, and other information provided by the applicant, to determine the presence or absence of such species and critical habitat in the project area. Based on this review, USACE has made a preliminary determination that the following Federally-listed species and designated critical habitat are present at the project location or in its vicinity, and may be affected by project

implementation: steelhead (*Oncorhynchus mykiss*), coho salmon (*O. kisutch*), and tidewater goby (*Eucyclogobius newberryi*). Steelhead and tidewater goby are present and coho may be present in the lagoon. The proposed IMP actions, particularly the temporary outlet channel, could adversely affect all three species due to direct mechanical impacts, entrainment, or changes in water quality that may occur and may adversely affect critical habitat. To address project related impacts to these species and designated critical habitat, USACE has initiated formal consultation with USFWS and NMFS, pursuant to Section 7(a) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

Magnuson-Stevens Fishery Conservation and Management Act (MSFCMA): Section 305(b)(2) of the MSFCMA of 1966, as amended (16 U.S.C. § 1801 *et seq.*), requires Federal agencies to consult with the NMFS on all proposed actions authorized, funded, or undertaken by the agency that may adversely affect essential fish habitat (EFH), which is defined as those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. EFH is designated only for those species managed under a Federal Fisheries Management Plan (FMP), such as the *Pacific Groundfish FMP*, the *Coastal Pelagics FMP*, and the *Pacific Coast Salmon FMP*. As the Federal lead agency for this project, USACE has conducted a review of digital maps prepared by NMFS depicting EFH to determine the presence or absence of EFH in the project area. Based on this review, USACE has made a *preliminary* determination that EFH is present at the project location or in its vicinity, and that the critical elements of EFH may be adversely affected by project implementation. To address project related impacts to EFH, USACE has initiated consultation with NMFS, pursuant to Section 305(5)(b)(2) of the Act. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project.

Marine Protection, Research, and Sanctuaries Act (MPRSA): Section 302 of the MPRS of 1972, as amended (16 U.S.C. § 1432 *et seq.*), authorizes the Secretary of Commerce, in part, to designate areas of ocean waters, such as the Cordell Bank, Gulf of the Farallones, and Monterey Bay, as National Marine Sanctuaries for the purpose of preserving or restoring such areas for their conservation, recreational, ecological, or aesthetic values. After such designation, activities in sanctuary waters authorized under other authorities are

valid only if the Secretary of Commerce certifies that the activities are consistent with Title III of the Act. No Department of the Army Permit will be issued until the applicant obtains the required certification or permit. Since the project occurs in sanctuary waters or may affect sanctuary resources, the applicant is hereby advised to apply for certification or a permit from the Secretary of Commerce, or his designee, to comply with this requirement.

National Historic Preservation Act (NHPA): Section 106 of the NHPA of 1966, as amended (16 U.S.C. § 470 *et seq.*), requires Federal agencies to consult with the appropriate State Historic Preservation Officer to take into account the effects of their undertakings on historic properties listed in or eligible for listing in the *National Register of Historic Places*. Section 106 of the Act further requires Federal agencies to consult with the appropriate Tribal Historic Preservation Officer or any Indian tribe to take into account the effects of their undertakings on historic properties, including traditional cultural properties, trust resources, and sacred sites, to which Indian tribes attach historic, religious, and cultural significance. As the Federal lead agency for this undertaking, USACE has conducted a review of the latest published version of the *National Register of Historic Places*, survey information on file with various city and county municipalities, and other information provided by the applicant, to determine the presence or absence of historic and archaeological resources within the permit area. The project area is near two National Historic Landmarks, the Giant Dipper Roller Coaster and the Loeffel Carousel. Based on an initial review, USACE has made a *preliminary* determination that the project either has no potential to cause effects to these resources or has no effect to these resources. USACE will render a final determination on the need for consultation at the close of the comment period, taking into account any comments provided by the State Historic Preservation Officer, the Tribal Historic Preservation Officer, the Advisory Council on Historic Preservation, and Native American Nations or other tribal governments. Any required consultation must be concluded prior to the issuance of a Department of the Army Permit for the project. If unrecorded archaeological resources are discovered during project implementation, those operations affecting such resources will be temporarily suspended until USACE concludes Section 106 consultation with the State Historic Preservation Officer or the Tribal Historic Preservation Officer to take into account any project related impacts to those resources.

5. COMPLIANCE WITH THE SECTION 404(b)(1)

GUIDELINES: Projects resulting in discharges of dredged or fill material into waters of the United States must comply with the Guidelines promulgated by the Administrator of the Environmental Protection Agency under Section 404(b) of the Clean Water Act (33 U.S.C. § 1344(b)). An evaluation pursuant to the Guidelines indicates the project is dependent on location in or proximity to waters of the United States to achieve the basic project purpose. This conclusion raises the (rebuttable) presumption of the availability of a practicable alternative to the project that would result in less adverse impact to the aquatic ecosystem, while not causing other major adverse environmental consequences. The applicant has submitted an analysis of project alternatives which is being reviewed by USACE.

6. PUBLIC INTEREST EVALUTION: The decision on whether to issue a Department of the Army Permit will be based on an evaluation of the probable impacts, including cumulative impacts, of the project and its intended use on the public interest. Evaluation of the probable impacts requires a careful weighing of the public interest factors relevant in each particular case. The benefits that may accrue from the project must be balanced against any reasonably foreseeable detriments of project implementation. The decision on permit issuance will, therefore, reflect the national concern for both protection and utilization of important resources. Public interest factors which may be relevant to the decision process include conservation, economics, aesthetics, general environmental concerns, wetlands, cultural values, fish and wildlife values, flood hazards, floodplain values, land use, navigation, shore erosion and accretion, recreation, water supply and conservation, water quality, energy needs, safety, food and fiber production, mineral needs, considerations of property ownership, and, in general, the needs and welfare of the people.

7. CONSIDERATION OF COMMENTS: USACE is soliciting comments from the public; Federal, State and local agencies and officials; Native American Nations or other tribal governments; and other interested parties in order to consider and evaluate the impacts of the project. All comments received by USACE will be considered in the decision on whether to issue, modify, condition, or deny a Department of the Army Permit for the project. To make this decision, comments are used to assess impacts on endangered species, historic properties, water quality, and other environmental or public interest factors addressed in a final environmental assessment or environmental impact statement. Comments are also used

to determine the need for a public hearing and to determine the overall public interest of the project.

8. SUBMITTING COMMENTS: During the specified comment period, interested parties may submit written comments to Greg Brown, San Francisco District, Regulatory Division, 1455 Market Street, 16th Floor, San Francisco, California 94103-1398; comment letters should cite the project name, applicant name, and public notice number to facilitate review by the Regulatory Permit Manager. Comments may include a request for a public hearing on the project prior to a determination on the Department of the Army permit application; such requests shall state, with particularity, the reasons for holding a public hearing. All substantive comments will be forwarded to the applicant for resolution or rebuttal. Additional project information or details on any subsequent project modifications of a minor nature may be obtained from the applicant and/or agent, or by contacting the Regulatory Permit Manager by telephone or e-mail cited in the public notice letterhead. An electronic version of this public notice may be viewed under the *Public Notices* tab on the USACE website:
<http://www.spn.usace.army.mil/Missions/Regulatory>.